Claims

1. A method of manufacturing recording media comprising depositing a base layer, the base layer being a carbon overcoat, coating the base layer with an additive, exposing the base layer coated with the additive to UV to bond the additive to the base layer and subsequently coating a lubricant to the base layer to produce a lubricant film wherein the additive forms an additive layer bonded to the base layer, the additive layer being of a thickness greater than 1Å.

2. The method of claim 1, further comprising degreasing the base layer after exposing the base layer coated with the additive to UV but prior to coating a lubricant to the base layer to produce a lubricant film.

3. The method of claim 1, wherein the lubricant film comprises the additive and the lubricant and the additive is not phase separated from the lubricant.

4. The method of claim 1, wherein the coating the base layer with an additive is by a liquid or vapor deposition process.

5. The method of claim 1, wherein a majority of binding sites of the base layer capable of pair-wise binding to molecules of the lubricant are bound to molecules of the additive.

6. The method of claim 1, wherein the base layer coated with the additive and exposed to UV provides a surface mobility to the lubricant molecules that is higher than a surface mobility provided by another base layer coated with the additive and not exposed to UV.

7. The method of claim 1, wherein a formula of a molecule of the lubricant has same groups at both ends of the formula.

8. The method of claim 1, wherein a formula of a molecule of the lubricant has different groups at both ends of the formula.

9. The method of claim 1, wherein the additive comprises Bis(4-fluorophenoxy)-tetrakis(3-trifluoromethyl phenoxy) cyclotriphosphazene and the lubricant comprises a fluorinated oil.

10. The method of claim 1, wherein the lubricant film has a thickness in a range of about 0.5 nm to about 3 nm.

11. A recording media comprising a base layer, the base layer being a carbon overcoat, and a lubricant film comprising a lubricant and an additive bonded to the base layer, the additive forming an additive layer bonded to the base layer, the additive layer being of a thickness greater than 1Å.

12. The media of claim 11, wherein the additive is not phase separated from the lubricant.

13. The media of claim 11, wherein a majority of binding sites of the base layer capable of pair-wise binding to molecules of the lubricant are bound to molecules of the additive.

14. The media of claim 11, wherein the base layer having the additive UV bonded thereon provides a surface mobility to the lubricant molecules that is higher than a surface mobility provided by another base layer coated with the additive and not exposed to UV.

15. The media of claim 11, wherein a formula of a molecule of the lubricant has same groups at both ends of the formula.

16. The media of claim 11, wherein a formula of a molecule of the lubricant has different groups at both ends of the formula.

17. The media of claim 11, wherein the lubricant film has a thickness in a range of about 0.5 nm to about 3 nm.

18. The media of claim 11, wherein the additive is bonded to the base layer by exposing the base layer coated with the additive to UV.

19. The media of claim 11, wherein the lubricant has a M_w/M_n ratio between 1 and 1.6.

20. A method for preventing phase separation of an additive in a lubricant film comprising a lubricant and the additive, the method comprising depositing a base layer, the base layer being a carbon overcoat, coating the base layer with the additive, exposing the base layer coated with the additive to UV to bond the additive to the base layer and subsequently coating the lubricant to the base layer to produce the lubricant film wherein the additive forms an additive layer bonded to the base layer.